



# TORQ Analysis of Paper Goods Machine Setters, Operators, and Tenders to Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

## INPUT SECTION:

Transfer	Title	O*NET	Filters		
From Title:	Paper Goods Machine Setters, Operators, and Tenders	51-9196.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	51-9041.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

## OUTPUT SECTION:

Grand TORQ:

89

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	87	Level	91	Level	89

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp't	Skill	Level	Gap	Imp't	Knowledge	Level	Gap	Imp't
Rate Control	46	14	72	Active Listening	50	7	72	No Knowledge Upgrades Required!			
Visualization	53	16	53								
Far Vision	46	12	62								
Reaction Time	51	10	65								
Static Strength	46	12	53								
Perceptual Speed	50	9	65								
Multilimb Coordination	46	7	59								
Finger Dexterity	48	6	59								
Speech Recognition	41	6	56								
Manual Dexterity	46	5	59								
Hearing Sensitivity	42	5	56								
Depth Perception	42	5	53								
Information Ordering	46	4	56								
Auditory Attention	50	4	56								
Deductive Reasoning	41	4	50								
Problem Sensitivity	42	3	56								
Speech Clarity	37	3	53								



Trunk Strength	42	3	50
Arm-Hand Steadiness	44	2	62
Selective Attention	46	2	56
Oral Comprehension	46	2	50
Oral Expression	44	2	50
Stamina	34	2	50

LEVEL and IMPT (IMPORTANCE) refer to the Target Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders. GAP refers to level difference between Paper Goods Machine Setters, Operators, and Tenders and Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders.

## ASK ANALYSIS

### Ability Level Comparison - Abilities with importance scores over 50

Description	Paper Goods Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
Rate Control	32	46	72
Perceptual Speed	41	50	65
Reaction Time	41	51	65
Arm-Hand Steadiness	42	44	62
Far Vision	34	46	62
Manual Dexterity	41	46	59
Finger Dexterity	42	48	59
Control Precision	48	46	59
Multilimb Coordination	39	46	59
Near Vision	48	46	59
Problem Sensitivity	39	42	56
Information Ordering	42	46	56
Selective Attention	44	46	56
Hearing Sensitivity	37	42	56
Auditory Attention	46	50	56
Speech Recognition	35	41	56
Visualization	37	53	53
Static Strength	34	46	53
Visual Color Discrimination	39	37	53
Depth Perception	37	42	53
Speech Clarity	34	37	53
Oral Comprehension	44	46	50
Oral Expression	42	44	50
Deductive Reasoning	37	41	50
Category Flexibility	37	37	50
Trunk Strength	39	42	50
Stamina	32	34	50



## Skill Level Comparison - Abilities with importance scores over 69

Description	Paper Goods Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
Operation Monitoring	62	57	76
Operation and Control	60	55	74
Active Listening	43	50	72
Troubleshooting	53	53	72
Equipment Maintenance	58	58	69

## Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Paper Goods Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
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## Experience &amp; Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Paper Goods Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Description	Paper Goods Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
10+ years	0%	4%	Doctoral	0%	0%
8-10 years	3%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	0%	0%	Master's Degree	0%	0%
2-4 years	0%	4%	Post-Bachelor Cert	0%	0%
1-2 years	41%	28%	Bachelors	0%	0%
6-12 months	1%	44%	AA or Equiv	0%	0%
3-6 months	5%	0%	Some College	0%	0%
1-3 months	16%	0%	Post-Secondary Certificate	0%	9%
0-1 month	3%	0%	High School Diploma or GED	74%	77%
None	27%	18%	No HSD or GED	24%	13%

Paper Goods Machine Setters, Operators, and Tenders

Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

## Most Common Educational/Training Requirement:

Moderate-term on-the-job training

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## Job Zone Comparison

2 - Job Zone Two: Some Preparation Needed

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Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.

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These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

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## Tasks

### Paper Goods Machine Setters, Operators, and Tenders

#### Core Tasks

##### Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

#### Specific Tasks

##### Occupation Specific Tasks:

- Adjust guide assemblies, forming bars, and folding mechanisms according to specifications, using hand tools.
- Cut products to specified dimensions, using hand or power cutters.
- Disassemble machines to maintain, repair, or replace broken or worn parts, using hand or power tools.
- Examine completed work to detect defects and verify conformance to work orders, and adjust machinery as necessary to correct production problems.
- Fill glue and paraffin reservoirs, and position rollers to dispense glue onto paperboard.
- Install attachments to machines for gluing, folding, printing, or cutting.
- Lift tote boxes of finished cartons, and dump cartons into feed hoppers.
- Load automatic stapling mechanisms.
- Measure, space, and set saw blades, cutters, and perforators, according to product specifications.

### Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

#### Core Tasks

##### Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

#### Specific Tasks

##### Occupation Specific Tasks:

- Activate machines to shape or form products such as candy bars, light bulbs, balloons, or insulation panels.
- Adjust machine components to regulate speeds, pressures, and temperatures, and amounts, dimensions, and flow of materials or ingredients.
- Clean dies, arbors, compression chambers, and molds, using swabs, sponges, or air hoses.
- Clear jams, and remove defective or substandard materials or products.
- Complete work tickets, and place them with products.
- Couple air and gas lines to machines to maintain plasticity of material and to regulate solidification of final products.
- Disassemble equipment to repair it or to replace parts such as nozzles, punches, and filters.
- Examine, measure, and weigh materials or products to verify conformance to standards, using measuring devices such



- Monitor finished cartons as they drop from forming machines into rotating hoppers and then into gravity feed chutes, in order to prevent jamming.
- Observe operation of various machines to detect and correct machine malfunctions such as improper forming, glue flow, or pasteboard tension.
- Place rolls of paper or cardboard on machine feedtracks, and thread paper through gluing, coating, and slitting rollers.
- Remove finished cores, and stack or place them on conveyors for transfer to other work areas.
- Stamp products with information such as dates, using hand stamps or automatic stamping devices.
- Start machines and move controls to regulate tension on pressure rolls, to synchronize speed of machine components, and to adjust temperatures of glue or paraffin.

#### Detailed Tasks

##### Detailed Work Activities:

- adjust production equipment/machinery setup
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate pulp or paper making equipment
- read specifications
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

as templates, micrometers, or scales.

- Feed products into machines by hand or conveyor.
- Ignite burners to preheat products, or use torches to apply heat.
- Install, align, and adjust neck rings, press plungers, and feeder tubes.
- Measure arbors and dies to verify sizes specified on work tickets.
- Measure, mix, cut, shape, soften, and join materials and ingredients such as powder, cornmeal, or rubber in order to prepare them for machine processing.
- Monitor machine operations and observe lights and gauges in order to detect malfunctions.
- Move materials, supplies, components, and finished products between storage and work areas, using work aids such as racks, hoists, and handtrucks.
- Notify supervisors when extruded filaments fail to meet standards.
- Pour, scoop, or dump specified ingredients, metal assemblies, or mixtures into sections of machine prior to starting machines.
- Press control buttons to activate machinery and equipment.
- Record and maintain production data such as meter readings, and quantities, types, and dimensions of materials produced.
- Remove materials or products from molds or from extruding, forming, pressing, or compacting machines, and stack or store them for additional processing.
- Remove molds, mold components, and feeder tubes from machinery after production is complete.
- Review work orders, specifications, or instructions to determine materials, ingredients, procedures, components, settings, and adjustments for extruding, forming, pressing, or compacting machines.
- Select and install machine components such as dies, molds, and cutters, according to specifications, using hand tools and measuring devices.
- Send product samples to laboratories for analysis.
- Swab molds with solutions to prevent products from sticking.
- Synchronize speeds of sections of machines when producing products involving several steps or processes.
- Thread extruded strips through water tanks and hold-down bars, or attach strands to wires and draw them through tubes.
- Turn controls to adjust machine functions, such as regulating air pressure, creating vacuums, and adjusting coolant flow.



## Detailed Tasks

## Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- collect samples for testing
- confer with engineering, technical or manufacturing personnel
- construct molds
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate chemical processing equipment
- operate food processing production equipment/machinery
- operate glass or stone working equipment/machinery
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- operate pulp or paper making equipment
- operate woodworking equipment/machinery
- read specifications
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- test manufactured products or materials
- use hand or power tools
- use precision measuring tools or equipment

## Labor Market Comparison

Description	Paper Goods Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 38,230	\$ 28,330	\$( 9,900)



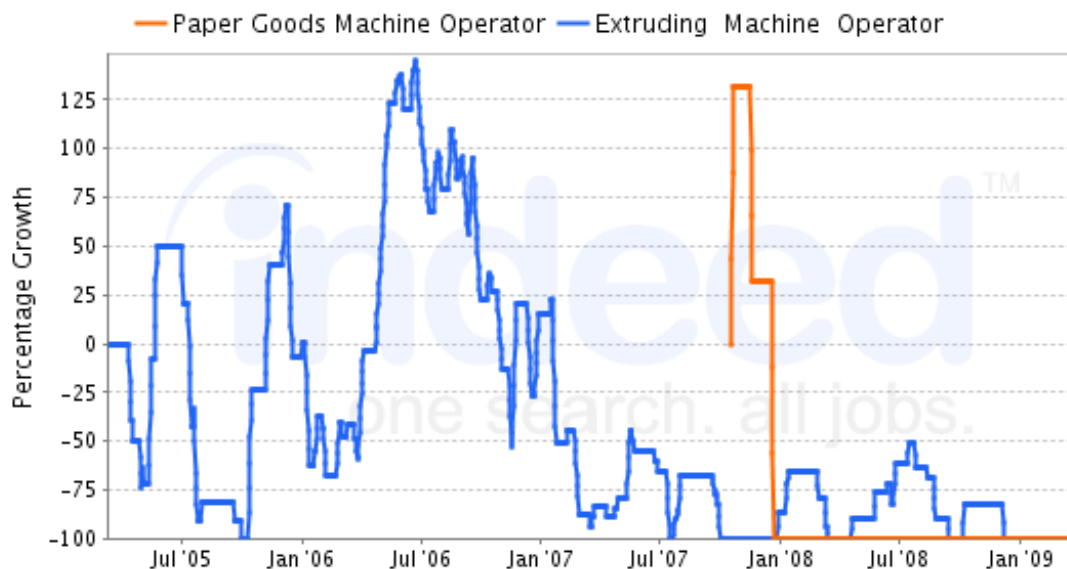
10th Percentile Wage	\$ 25,850	\$ 17,200	\$( 8,650)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 45,200	\$ 35,290	\$( 9,910)
90th Percentile Wage	\$ 51,680	\$ 44,260	\$( 7,420)
Mean Wage	\$ 38,330	\$ 29,370	\$( 8,960)
Total Employment - 2007	910	260	-650
Employment Base - 2006	951	272	-679
Projected Employment - 2016	700	252	-448
Projected Job Growth - 2006-2016	-26.4 %	-7.4 %	19.0 %
Projected Annual Openings - 2006-2016	23	5	-18

### National Job Posting Trends

Trend for Paper Goods Machine Setters, Operators, and Tenders

Trend for Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

### Job Trends from Indeed.com



Data from [Indeed](http://Indeed.com)

### Recommended Programs

Machinist/Machine Technologist



**Machine Tool Technology/Machinist.** A program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Kennebec Valley Community College	92 Western Ave	Fairfield	<a href="http://www.kvcc.me.edu">www.kvcc.me.edu</a>
Kennebec Valley Community College	92 Western Ave	Fairfield	<a href="http://www.kvcc.me.edu">www.kvcc.me.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>

#### Sheet Metal Worker

**Sheet Metal Technology/Sheetworking.** A program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.

Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>

### Maine Statewide Promotion Opportunities for Paper Goods Machine Setters, Operators, and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	100	2	910	\$38,230.00	\$0.00	-26%	23
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	84	2	850	\$38,860.00	\$630.00	-26%	19
51-4011.00	Computer-Controlled Machine Tool Operators, Metal and Plastic	82	2	720	\$40,490.00	\$2,260.00	6%	12
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	81	2	970	\$41,950.00	\$3,720.00	-12%	10
51-9011.00	Chemical Equipment Operators and Tenders	81	2	0	\$38,790.00	\$560.00	-2%	5





51-4041.00	Machinists	78	3	1,860	\$41,560.00	\$3,330.00	4%	35
51-4192.00	Lay-Out Workers, Metal and Plastic	77	2	180	\$43,870.00	\$5,640.00	-24%	3
53-6051.07	Transportation Vehicle, Equipment and Systems Inspectors, Except Aviation	77	3	60	\$42,890.00	\$4,660.00	5%	2
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	76	3	440	\$49,450.00	\$11,220.00	-19%	15
51-8013.00	Power Plant Operators	75	3	480	\$50,240.00	\$12,010.00	10%	21
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	74	3	170	\$47,860.00	\$9,630.00	-9%	3
51-4111.00	Tool and Die Makers	74	3	160	\$51,670.00	\$13,440.00	-11%	2
49-9096.00	Riggers	73	3	250	\$39,140.00	\$910.00	-12%	2
51-1011.00	First-Line Supervisors/Managers of Production and Operating Workers	73	3	3,750	\$45,510.00	\$7,280.00	-4%	65
47-2011.00	Boilermakers	72	4	60	\$39,260.00	\$1,030.00	12%	3

### Top Industries for Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Rubber product manufacturing	326200	18.33%	14,883	10,510	-29.39%
Cement and concrete product manufacturing	327300	11.55%	9,375	10,176	8.55%
Plastics product manufacturing	326100	8.23%	6,685	7,086	6.00%
Glass and glass product manufacturing	327200	5.04%	4,093	3,571	-12.76%
Clay product and refractory manufacturing	327100	4.14%	3,358	3,075	-8.41%
Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	325200	3.99%	3,237	2,599	-19.73%
Converted paper product manufacturing	322200	3.67%	2,982	2,502	-16.08%
Pharmaceutical and medicine manufacturing	325400	3.01%	2,444	3,080	26.03%
Animal slaughtering and processing	311600	2.87%	2,329	2,658	14.13%
Soap, cleaning compound, and toilet preparation manufacturing	325600	2.17%	1,763	1,694	-3.92%
Veneer, plywood, and engineered wood product manufacturing	321200	2.10%	1,703	1,854	8.89%
Bakeries and tortilla manufacturing	311800	1.66%	1,350	1,379	2.15%



Sugar and confectionery product manufacturing	311300	1.59%	1,292	1,088	-15.77%
Pulp, paper, and paperboard mills	322100	1.56%	1,265	877	-30.64%
Other chemical product and preparation manufacturing	325900	1.36%	1,106	870	-21.34%

### Top Industries for Paper Goods Machine Setters, Operators, and Tenders

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	60.48%	68,412	57,411	-16.08%
Pulp, paper, and paperboard mills	322100	21.93%	24,800	17,202	-30.64%
Printing and related support activities	323100	8.22%	9,293	7,363	-20.77%
Newspaper publishers	511110	1.36%	1,536	1,316	-14.33%
Plastics product manufacturing	326100	1.27%	1,439	1,525	6.00%
Wholesale electronic markets and agents and brokers	425100	0.67%	762	865	13.48%
Employment services	561300	0.55%	618	783	26.56%
Animal slaughtering and processing	311600	0.46%	521	595	14.13%
Advertising and related services	541800	0.40%	448	505	12.83%
Paper and paper product merchant wholesalers	424100	0.39%	440	470	6.83%
Other general purpose machinery manufacturing	333900	0.19%	219	198	-9.73%
Miscellaneous durable goods merchant wholesalers	423900	0.09%	100	114	14.81%
Warehousing and storage	493100	0.07%	76	101	33.58%
Other electrical equipment and component manufacturing	335900	0.06%	69	64	-7.34%
Fruit and vegetable preserving and specialty food manufacturing	311400	0.05%	61	55	-9.33%